



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,838	07/08/2003	John M. Harris	CE10878R	9157
22917	7590	06/15/2005	EXAMINER	
MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			RAMOS FELICIANO, ELISEO	
			ART UNIT	PAPER NUMBER
			2687	

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,838

Applicant(s)

HARRIS ET AL.

Examiner

Eliseo Ramos-Feliciano

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-24 and 26-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-2, 4, 6-11, 24, and 26-28 is/are allowed.
- 6) ☒ Claim(s) 12-15, 29 and 30 is/are rejected.
- 7) ☒ Claim(s) 16-23 and 31-35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings were received on January 28, 2005. These drawings are acceptable.

Specification

2. Previous objection to the specification is withdrawn in view of Applicant's amendment filed January 28, 2005.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 12-15 and 29-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hult et al. (US Patent Number 5,822,700) in view of Murto (US Patent Number 5,966,662).

Regarding **claim 12**, Hult et al. discloses a method for signaling based on paging channel loading (control channel loading) including:

determining that short messaging needs to be sent to an MS (see Figure 2, step 102);

determining a paging channel (control channel - column 3, lines 43-44) loading level (capacity) for each of a plurality of cells in which the MS may be located (see Figure 2, steps 108, 110, 112, 116);

transmitting the short messaging to the MS in those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold (see Figure 2, steps 112, 116, 120). (See column 6, lines 10-24).

However, Hult et al. fails to disclose the limitation transmitting the short messaging to the MS only in those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold.

Murto discloses a method for signaling based on paging channel loading wherein a paging message is first transmitted for a MS via lightly loaded base stations (cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold) for the advantage of traffic load control (see the abstract), since it is not reasonable to transmit the paging message via all base stations (cells) of the entire system (see column 1, lines 26-29).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Hult et al. for transmitting the short messaging to the MS only in those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold for the advantage of traffic load control since it is not reasonable to transmit the paging message via all cells of the entire system as taught by Murto.

Regarding **claims 13 and 14**, Hult et al. and Murto disclose everything claimed as applied above (see *claim 12*). In addition, Hult et al. discloses that the short messaging comprises messaging from the group consisting of data burst messaging (DBM), short message service (SMS) messaging, short data burst (SDB) messaging, a data packet, and notification messaging. (See title and Figure 2, step 102). For example, SMS. The

Art Unit: 2687

notification messaging can be, for example, location registration signals (presence notification messaging).

Regarding **claim 15**, Hult et al. and Murto disclose everything claimed as applied above (see *claim 12*). In addition, Murto discloses that when no response is received from the MS after transmitting the messaging to the MS only in those cells of the plurality of cells in which the paging channel loading level is below the threshold, transmitting the messaging to the MS in at least one of those cells of the plurality of cells in which the paging channel loading level is above the threshold. (See column 8, lines 9-13, column 6, lines 45-47, column 2, lines 34-35).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Murto for transmitting the messaging to the MS in at least one of those cells of the plurality of cells in which the paging channel loading level is above the threshold when no response is received for the purpose of performing a successful communications connection.

Regarding **claims 29 and 30**, they are the corresponding apparatus claims of method claims 12 and 15, respectively. The same reasons explained above are applied. The wireless transceiver equipment adapted to support signaling transmission and reception for each cell of the plurality of cells and the communications controller adapted to perform the claimed steps is also included in Hult et al. and Murto (see Figure 1 of each).

Allowable Subject Matter

5. **Claims 1-2, 4, 6-11, 24, and 26-28 are allowed.**

Art Unit: 2687

6. **Claims 16-23, and 31-35** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Claims 1 and 24 are allowed because the closest prior art, Murto (US Patent Number 5,966,662) and Hult et al. (US Patent Number 5,822,700), either singularly or in combination, fail to anticipate or render obvious the underlined limitations in combination with each and every other limitations in the claim as defined by applicant.

Claims 16 and 31 are allowable because the closest prior art, Murto (US Patent Number 5,966,662) and Hult et al. (US Patent Number 5,822,700), either singularly or in combination, fail to anticipate or render obvious the recited limitations in combination with each and every other limitations in the base claim and any intervening claims as defined by applicant.

Response to Arguments

8. Applicant's arguments with respect to claims 1-11 and 24-28 have been considered but are moot; claims 1-2, 4, 6-11, 24, and 26-28 are allowed; claims 3, 5, and 25 have been canceled.

9. No arguments regarding claims 16-23 and 31-35 have been presented.

10. Applicant's arguments with respect to claims 12-15 and 29-30 filed January 28, 2005 have been fully considered but they are not persuasive.

11. With respect to representative claims 12 and 29, Applicant argues that Murto does not disclose the limitation concerning transmitting the short messaging to the MS only in

Art Unit: 2687

those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold (see page 13, last two paragraphs of the response).

In response it should be noted that the rejection is based on a combination of references. Hult et al. teaches transmitting the short messaging to the MS in those cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold (see Figure 2, steps 112, 116, 120). For clarification, the short messaging threshold is determined by the message length. If the SMS message length is less than a maximum and capacity on the control channel is available, the SMS message can be sent over control channel; therefore, the paging channel loading level (capacity to handle one more SMS message) is one that allows SMS message to be sent over control channel, that is below a short messaging threshold (see column 6, lines 10-24 of Hult et al.). Now, Hult et al. fails to disclose that the message is transmitted only in certain particular cells as defined by Applicant. Murto is then applied to meet this limitation. As explained above Murto discloses a method for signaling based on paging channel loading wherein a paging message is first transmitted for a MS via lightly loaded base stations (cells of the plurality of cells in which the paging channel loading level is below a short messaging threshold) for the advantage of traffic load control (see the abstract of Murto), since it is not reasonable to transmit the paging message via all base stations (cells) of the entire system (see column 1, lines 26-29 of Murto).

12. In response to applicant's argument that Murto appears to be focused on the traffic channels rather than paging channels (see page 13, first full paragraph of the response), the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for

Art Unit: 2687

patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication from the examiner should be directed to Eliseo Ramos-Feliciano whose telephone number is 571-272-7925. The examiner can normally be reached from 8:00 a.m. to 5:30 p.m. on 5-4/9 1st Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid, can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


ELISEO RAMOS-FELICIANO
PATENT EXAMINER

ERF/erf
June 10, 2005